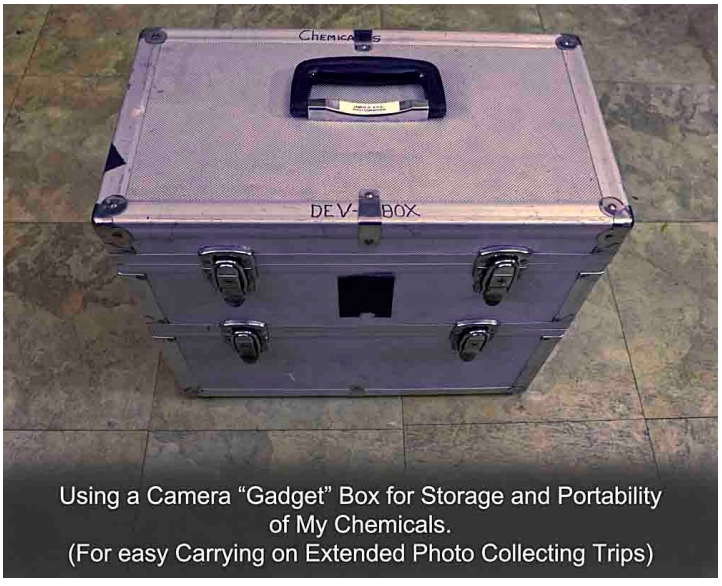
Chemical Equipment
For Creating Your Own Development Solutions

Being the sort of person that really likes to make my own - Anything - I offer to other interested photographers who wish to experiment with making their own DIY chemical solutions. Thus - Having better control over their chemical development processes. All one needs is the equipment, written "base" formulas, the "wanna" to experiment (having the mind set to do so), and a NOTEBOOK.

This is not for just everyone - However - there are some folks that are not content with some of the things from manufactured products that are available on the open market. The raw chemicals are very available - Most common supplier is ***"Photographers Formulary"***. They have almost EVERYTHING that the experimenting photographer would need. But - the glassware and other needed items to successfully create your personal designs of re-mixes of the "standard" marketed developers. I bought all of my equipment on "Amazon". All one has to know is what to buy.

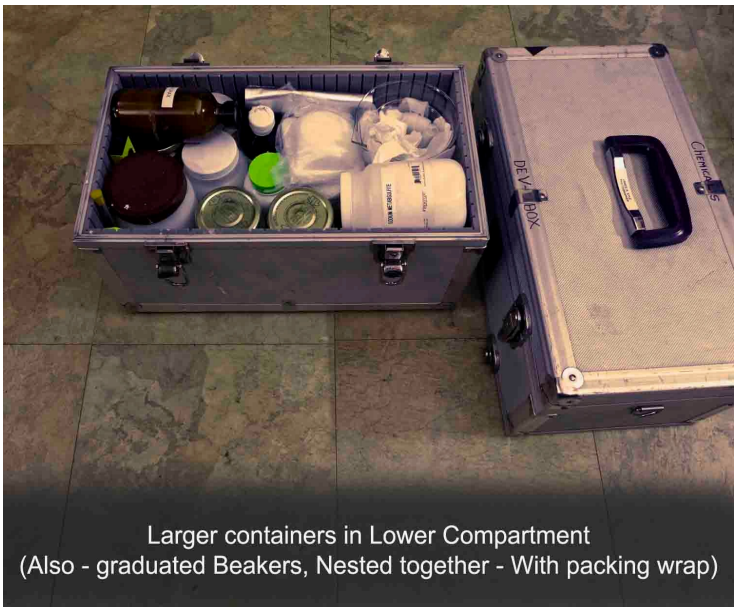
Here in this article, I will show, that it does not take a higher education to be a "photographic chemist". You MUST follow the safety rules and precautions of handling these, somewhat, difficult substances. Common sense will keep you out of a lot of problems. One MUST read, take notes on those readings, as well as taking notes on your progress. Yeah! It takes an EFFORT. (Anything worthwhile takes an effort.)



Using a Camera "Gadget" Box for Storage and Portability of My Chemicals.
(For easy Carrying on Extended Photo Collecting Trips)

Small Containers of Chemicals are Stored in Upper Compartment
(Along with a few other essentials)

Shown above is the box I keep my chemicals in - for home as well as traveling on extended trips for over one week of traveling. (I have a "darkroom area" in my camper.)

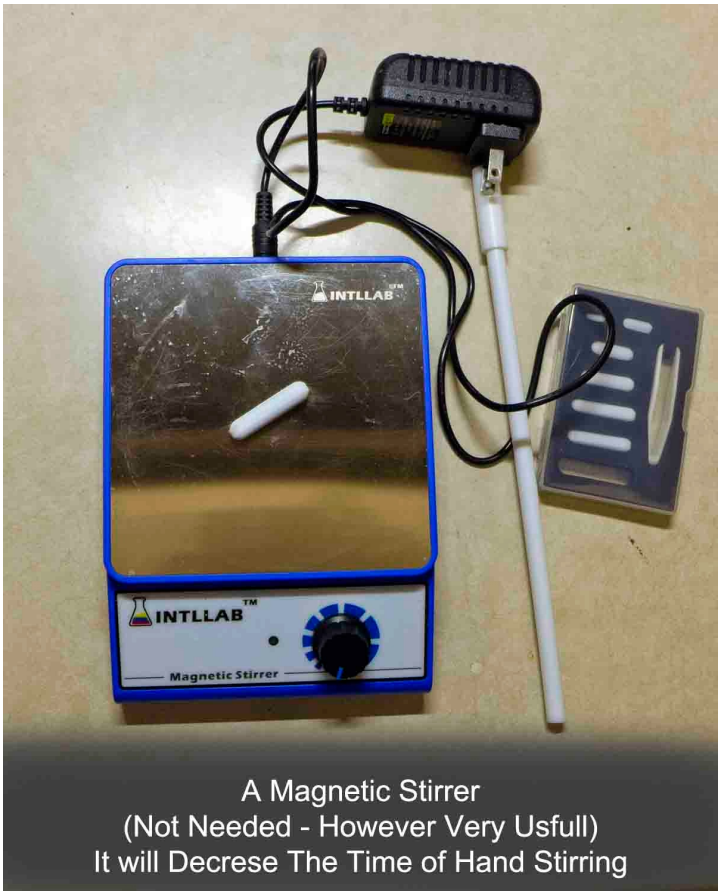


Larger containers in Lower Compartment
(Also - graduated Beakers, Nested together - With packing wrap)

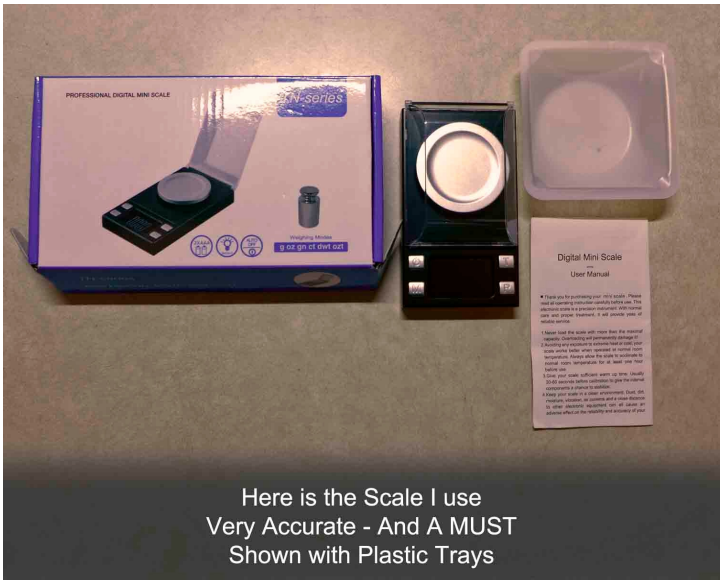
I did have a larger box to carry my chemicals in, however, I down sized to only the most common used for my purposes. How I carry all the chemicals I need in a more compact carrying box. The glassware is in another thing. But all I really need on trips are the Beakers, a Graduated Cylinder, and two small Syringes.

The equipment:

Measuring Vessels With Cleaning Brushes, Hydrometer and Tongs
A MUST for Accurate Liquid Measuring.



A Magnetic Stirrer
(Not Needed - However Very Usfull)
It will Decrese The Time of Hand Stirring

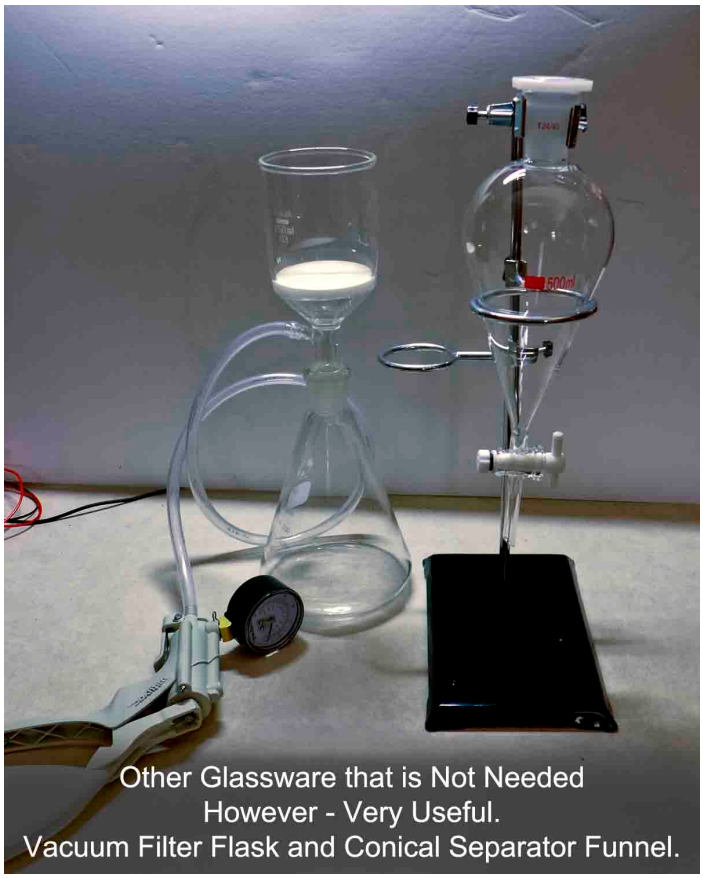


Here is the Scale I use
Very Accurate - And A MUST
Shown with Plastic Trays

Storage Solution Bottles
(Always Use DARK bottles)
Shown here are Brown "Boston" One Liter Bottles.

In a different article I wrote a few years ago I cover the chemicals used, their precautions, and other useful info. A MUST for any photographic experimenter is the "***Darkroom Cookbook***" by Steve Anchell = If you do not have a "Hard Copy" (book) or a PDF = I suggest that you get hold of a copy. Steve has done one really great job of making available everything you would need to know about photographic chemical formulas. There are many other books on the market - however - the "Darkroom Cookbook" is a MUST have.

One the next page is a list of the various raw chemicals I have collected. Remember to store your chemicals in your darkroom (LOCKED) if you have children about the house. Or in a locked old "Steamer" trunk - Or Build one.



Other Glassware that is Not Needed
However - Very Useful.
Vacuum Filter Flask and Conical Separator Funnel.

List of Chemicals

1 - Can of Kodak Dektol (Dry)

1 - Bottle of Ethol (LPD) (Wet)

Kodak Indicator STOP (Wet)

Kodak (or ILFORD) Fixer (Wet)

= Raw Chemicals, Dry =

Instant Coffee Crystals

Sodium Carbonate (washing soda)

Ascorbic Acid - (Vitamin "C")

Copper Sulfate

Metol

Benzotriazole

Phenidone

Sodium Acetate

Sodium Hydroxide

Sodium Metabisulfite

Amidol

Sodium Sulfite Anhydrous

Sodium Thiosulfate

Potassium Bromide

Potassium Ferricyanide

10 Oz. Silver Nitrate

16 Oz. - Grain Alcohol 98%

16 Oz. Isopropyl Alcohol 91%

A Few - Ready Measured Dev. powders

1 - 1000 ML Vacuum Filtering Flash 7 Pump

1 - 16 Oz. Measuring Graduate

1 - 32 Oz. Measuring Graduate

1 - 100 ml Graduate Cylinder

1 - 5 ml Graduate Cylinders

1 - "Nested" Beaker Set (15 to 1000 ML)

3 - Funnels (Plastic)

1 - 1 to 10 ml Syringe Set (With Blunt Needle)

1 - Mortar & Pestle

2 - Thermometers

1 - Kodak Mechanical Timer

Filter Papers

1 - Small Digital Weight Scale

4 - Each - Empty Bottles (3- 16 Oz. / 1-32 Oz.)

2 - Sponges

1 - Roll of frosted tape

1 - Personal Chemical Notebook

4 - Pencils

1 - Eraser

2 - Ball-Point Pens

"The Darkroom Cookbook" - (Get a copy.)

By using common sense, and keeping of careful notes, just about anyone from age 10 to 100 can make their own developers. (I know – I have also read some crap about any and all "combinations of these raw chemicals has been done over and over with great care." – Well! I say = "PHUZZZT !!" on that malarkey. I like to do things.) However = If you are content with "store bought" manufactured and true tested chemical compounds.... Well! Good For You. (Be simply 'content' in your mediocrity.) However, remember that nothing is gained by not giving anything a try for yourself. Be adventurous, do things for yourself. Just because anyone tells you that what you want to do can not be done. (Remember the "Bumble Bee Theory".... The bumble bee is not aerodynamically possible to fly, the wings are not suited for the mass of the body..... The bumble bee does not know this - so it flies anyway.) Be the "Bumble-Bee" - Learn by doing.

Read everything you can find. One really great book that may still be had is the ***"Photo Lab Index" by Henry M. Lester***. This 2 ½ inch thick book has Everything about any photographic chemical. (Horrible plot = Great reference book.)

Another is "***Photographic Facts and Formulas***" by E. J. Wall & John S. Carroll. This one is very technical, and somewhat difficult to get my head around - But another really good source of information.

If you do want a book that IS highly technical I suggest "***Fundamentals of Photographic Theory***" by T. H. James & George C. Higgins.

And then there is a good and simple one ***"Fundamentals of Photography" by Dr. C. E. Kenneth Mees***. (The one time Director and chief chemist for the Eastman-Kodak Company.) You can not go wrong with this easy to read and comprehend little book. I think there is a PDF of this one to be found online. I have the book.

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If this does not work for you... You may buy the book from:

https://www.amazon.com/fundamentals-photography-C-Kenneth-Mees/dp/9354150845/ref=tmm_pap_swatch_0?_encoding=UTF8&qid=&sr=

(Copy and Paste the above in the "Address Line" of your browser.)

Thank you for reading.....

James R. Kyle, Photographic Experimenter, St. Louis, MO